REMARKS/ARGUMENTS

The applicants have studied the office action mailed February 25, 2008, and have made the changes believed appropriate to place the application in condition for allowance. Reconsideration and reexamination are respectfully requested.

The non-method claims have been cancelled without prejudice to expedite prosecution of the method claims.

The Examiner has objected to the claims under Sec. 112 of the statute as indefinite. This rejection is respectfully traversed.

The applicants respectfully disagree. In order to expedite prosecution, the claims have been amended as kindly suggested by the Examiner. It is therefore respectfully submitted that the rejection of the claims should be withdrawn.

The Examiner has objected to claims 41, 44, 46 and 60-63 under Sec. 101 of the statute as indefinite. This rejection is respectfully traversed.

The applicants respectfully disagree. In order to expedite prosecution, nonmethod claims 41, 44, 46 and 60-63 have been cancelled as set forth above. It is therefore respectfully submitted that the rejection of the claims under Sec. 101 is moot.

Although Applicants amended and cancelled claims, Applicants are not conceding in this application that the claims in their pre-amended form are invalid for being unpatentable, as the present claim amendments and cancellations are only for facilitating expeditious prosecution. Applicants respectfully reserve the right to pursue these and other claims in this present application and one or more continuations and/or divisional patent applications.

Claims 29, 34, 41, 46, 53, 59-60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,345,392 to Mito et al. referred hereinafter Mito in view of US Patent No. 6,543,002 to Kahle et al. referred hereinafter "Kahle". This rejection is respectfully traversed.

For example, claim 53 is directed to a "method for determining when to perform an error recovery instruction, comprising: receiving an error recovery instruction; beginning a timeout task; monitoring a processor interface for an idle condition; withholding access to a local processor and performing the error recovery instruction in response to detecting an idle condition in said processor interface before expiration of said timeout task; and forcing

performance of the error recovery instruction before an idle condition in said processor interface is detected when the timeout task expires."

It is the Examiner's position that the description of receipt of an interrupt in the Mito reference meets the recitation of "receiving an error recovery instruction" in claim 53; the description in Mito of "checking if I/O is active (see figure 4 item 192 and column 8 lines 40-45)" meets the limitation "monitoring a processor interface for an idle condition" in claim 53; and the description of performing a "suspend" routine in the Mito reference meets the recitations of "withholding access to a local processor [and] performing the error recovery instruction" in claim 53. However, even if the Examiner's positions are assumed to be correct, a position not conceded by the applicants, the Examiner concedes that the Mito reference fails to teach or suggest the combination of "beginning a timeout task, and forcing performance of the error recovery instruction before an idle condition in said processor interface is detected when the timeout task expires" as required by claim 53.

It is the Examiner's position that the deficiencies of the Mito reference are met by the Kahle reference:

> "Kahle disclose a hang detection unit for recovering from a hang condition via a hang recovery sequence. ... It would have been obvious ... to combine the teachings of Mito and Kahle to ... [force] performance of the error recovery instruction *[i.e. the suspend operation of the Mito reference]* before an idle condition in said processor interface is detected when the timeout task expires."

The applicants strongly disagree. It is respectfully submitted that the Examiner's proposed modification of the Mito reference would directly contradict the teachings of the Mito reference and therefore would clearly not be obvious to one of ordinary skill.

More specifically, it appears that the suspend operation of the Mito reference already has a timer, the "suspend timeout" of item 190, FIG. 4 of the Mito reference. However, if an I/O device is determined to be active (item 192, FIG. 4), Mito teaches, contrary to the Examiner's suggestion, that the suspend timeout is "reset" (item 194) and the suspend operation is *not* performed. Mito, col. 8, lines 41 et seq. Thus, instead of forcing the suspend operation if the I/O devices remain active as suggested by the Examiner, it is clear that the suspend timeout is intended to continue to be reset such that the suspend operation is intended *not* to be performed if the I/O devices remain active. (See items 192-196, FIG. 4 of the Mito reference.) It is clear that

the purpose of the I/O activity monitoring operation (item 192) cited by the Examiner is to *abort* the suspend operation if I/O activity is detected—the exact opposite of the Examiner's suggested modification.

Thus it is clear that the teachings of the Examiner citations to the Mito reference are the exact opposite of the teachings of the Examiner's citations to the Kahle reference. Accordingly, it is clear that it would not be obvious to one of ordinary skill to ignore the explicit teachings of the Mito reference to cause the Mito device to suspend itself even though I/O operations have been detected (item 192, 194).

The rejection of the dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend provide still further grounds of patentability over the cited art. It is respectfully submitted that the rejection of the claims should be withdrawn.

Claim 29, 32-34, 41, 44, 46, 53 and 57-63 have been rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,974,147 to Hanrahan et al. referred hereinafter "Hanrahan" in view of Kahle. This rejection is respectfully traversed.

It is the Examiner's position that the recitation of "receiving an error recovery instruction" is met by the description in the Hanrahan reference of receiving a quiesce signal (Hanrahan, col. 7, lines 20-23), that the recitation of "monitoring a processor interface for an idle condition" is met by the description in the Hanrahan reference of determining when there are no longer bus requests (Hanrahan, col. 7, lines 20-23), and the recitation of "withholding access to a local processor" is met by the description in the Hanrahan reference of performing no further bus activity (Hanrahan, col. 7, lines 20-23). However, even if the Examiner's positions are assumed to be correct, a position not conceded by the applicants, it is clear that the Examiner has cited no portion of the Hanrahan reference teaching or suggesting "withholding access to a local processor and performing the error recovery instruction in response to detecting an idle condition in said processor interface before expiration of said timeout task" as required by claim 53. Instead of stopping bus arbitration in response to detection of an idle condition, the Examiner's citations to the Hanrahan reference state that the "stop arbitration decision (block 194) consists of detecting either a bus busy indication or a quiesce condition." Thus, it appears that Hanrahan describes stopping bus arbitration in response to a quiesce signal (or bus busy indication)

regardless of the outcome of "determining when there are no longer bus requests" (item 192). Moreover, the stop bus arbitration decision (item 194) is not even reached unless there are determined to be active requests (item 192), the opposite of an idle condition.

Still further, the Examiner concedes that "Hanrahan fails to disclose: beginning a timeout task, and forcing performance of the error recovery instruction before an idle condition in said processor interface is detected when the timeout task expires."

Instead, it is the Examiner's position that:

"It would have been obvious ... to combine the teachings of Hanrahan and Kahle to ... [force] performance of the error recovery instruction [that is, the quiesce operation of Hanrahan] before an idle condition in said processor interface is detected when the timeout task expires."

The applicants strongly disagree. As noted above, the quiesce operation of the Hanrahan reference cited by the Examiner is always forced regardless of active bus request activity. (Hanrahan, col. 7, lines 20-23). Thus, in the Hanrahan reference, the Hanrahan quiesce operation cited by the Examiner is forced regardless of whether the bus requests are active or idle as determined by the monitor of item 192. Accordingly, it is respectfully submitted that a timer such as that suggested by the Examiner to force the quiesce condition before an idle condition is detected would be inapplicable since the quiesce operation cited by the Examiner is *already* forced regardless of whether the bus requests are active or idle as determined by the monitor of item 192. It is therefore respectfully submitted that the Examiner has cited no portion of the Hanrahan or Kahle references, considered alone or in combination, having any teaching or suggestion of "forcing performance of the error recovery instruction before an idle condition in said processor interface is detected when the timeout task expires" as required by claim 53.

The rejection of the dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend provide still further grounds of patentability over the cited art. It is therefore respectfully submitted that the rejections of the claims should be withdrawn.

The Examiner has made various comments concerning the anticipation or obviousness of certain features of the present inventions. Applicants respectfully disagree. Applicants have

addressed those comments directly hereinabove or the Examiner's comments are deemed moot in view of the above response.

Conclusion

For all the above reasons, Applicant submits that the pending claims are patentable. Should any additional fees be required beyond those paid, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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By: /William Konrad/

William K. Konrad
Registration No. 28,868

Please direct all correspondences to:

William K. Konrad
Konrad Raynes & Victor, LLP
315 South Beverly Drive, Ste. 210
Beverly Hills, CA 90212
Tel: (310) 553-7970
Fax: 310-556-7984